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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/816,996

04/02/2004

Arthur Berman

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58076

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07/26/2006

REED SMITH, LLP

TWO EMBARCADERO CENTER

SUITE 2000

SAN FRANCISCO, CA 94111

EXAMINER

LAVARIAS, ARNEL C

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/816,996	BERMAN, ARTHUR	
	<b>Examiner</b>	<b>Art Unit</b>	
	Arnel C. Lavarias	2872	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/20/06, 3/27/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-67 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments to Claims 1, 4, 8-12, 16-19, 22, 24, 33-34, 37-39, 49-50, 57, 59, 61-66 in the submission dated 4/20/06 are acknowledged and accepted.

### ***Election/Restrictions***

2. In view of the amendments made to the claims above, the previous restriction requirement in the Office Action dated 2/22/06 is respectfully withdrawn, and a new restriction requirement is set forth *infra*.
3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - Ia. Claims 16, 22, 24, drawn to a LMOS configured to split an input light into at least three independent light channels, wherein the light is split and the modulated light channels are recombined using only cholesteric based beam splitters, classified in Class 359, subclass 629.
  - Ib. Claims 25-32, drawn to a prism assembly configured to split an incoming light beam into at least three different channels, wherein the beam splitters are constructed as pathlength matched beam splitters and the beam splitters are secured in prism assembly pathlength matched positions, classified in Class 359, subclass 637.
  - II. Claims 33-65, drawn to an LMS assembly including an input beam splitter, a first processing beam splitter, a second processing beam splitter, an output

recombination beam splitter, and wherein at least one of the beam splitters  
comprise a cholesteric based beam splitter, classified in Class 348, subclass 337.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions Ia, Ib, and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, each of the subcombinations do not overlap in scope, as evidenced by the mutually exclusive subject matter present in each subcombination (See the listing above listing the mutually exclusive subject matter). Further, each subcombination does not appear to be obvious variants. Finally, all of the subcombinations have separate utility in a combination without the particulars of the other subcombinations. See MPEP § 806.05(d).
5. **Applicant is required to elect one of the following inventions if election is made to Invention II:**
  - IIa. Claims 34, 49, drawn to an LMS assembly including particulars of the fabrication of the cholesteric based beam splitter, classified in Class 359, subclass 833.
  - IIb. Claims 35-36, drawn to an LMS assembly including the input beam splitter being a dichroic beam splitter, classified in Class 359, subclass 634.
  - IIc. Claims 37-39, drawn to an LMS assembly including the cholesteric based beam splitter comprising a dual color cholesteric layer, classified in Class 349, subclass 175.

- IId. Claims 40-43, drawn to an LMS assembly including the input beam splitter being a polarizing beam splitter, classified in Class 359, subclass 495.
- IIf. Claims 44-48, drawn to an LMS assembly including pathlength matching particulars for the beam splitter and prism assembly, classified in Class 359, subclass 637.
- IIf. Claims 50-65, drawn to an LMS assembly wherein the input beam splitter comprises a first color cholesteric layer having a first hand direction, the first processing beam splitter comprises a cholesteric layer of the first color and having the first hand direction, and the second processing beam splitter comprises a second color cholesteric layer having the first hand direction and a third color cholesteric layer having a second hand direction opposite the first hand direction, classified in Class 349, subclass 8.

The inventions are distinct, each from the other because of the following reasons:

- 6. Inventions IIa, IIb, IIc, IId, IIf, and IIf are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, each of the subcombinations do not overlap in scope, as evidenced by the mutually exclusive subject matter present in each subcombination (See the listing above listing the mutually exclusive subject matter). Further, each subcombination does not appear to be obvious variants. Finally, all of the subcombinations have separate utility in a combination without the particulars of the other subcombinations. See MPEP § 806.05(d).

7. Claim 33 link(s) inventions IIa, IIb, IIc, IId, IIe, and IIf. The restriction requirement among the linked inventions is subject to the nonallowance of the linking claim(s), Claim 33. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104. Claims that require all the limitations of an allowable linking claim will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim(s) including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. In re Ziegler, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

8. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

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9. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

10. This application contains claims directed to the following patentably distinct species:

**Applicant is required to elect one of the following species if election is made to**

**Invention II:**

Species II f1- the first color is green, the second color is blue, the third color is red. Claim 51.

Species II f2- the first color is green, the second color is red, the third color is blue. Claim 52.

Species II f3- the first color is blue, the second color is red, the third color is green. Claim 53.

Species II f4- the first color is blue, the second color is green, the third color is red. Claim 54.

Species II f5- the first color is red, the second color is blue, the third color is green. Claim 55.

Species II f6- the first color is red, the second color is green, the third color is blue. Claim 56.

Species II f7- the first hand direction is a right hand direction and the second hand direction is a left hand direction. Claim 57.

Species II f8- the first hand direction is a left hand direction and the second hand direction is a right hand direction. Claim 58.

The species are independent or distinct because the species as claimed do not overlap in scope, i.e., are mutually exclusive, as set forth above in the listing of species; the species as claimed do not appear to be obvious variants; and the species as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 50 appears to be generic among Species II f1-II f8 of Invention II f.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the



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election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

11. In addition, the following claims will be examined along with the elected invention/species only if the elected inventions/species is one of the following:

Invention Ia- Claim 15.

Invention Ib- Claims 1-15, 17-21, 23, 66-67.

Invention IIa- Claims 6, 15, 17.

Invention IIb- Claim 15.

Invention IIc- Claims 1, 15, 18-19, 66-67.

Invention IId- Claims 1, 15, 18-21, 66-67.

Invention IIe- Claims 15, 23.

Species IIf1- Claims 1-9, 10-11, 15, 17-19, 23, 66-67.

Species IIf2- Claims 1-9, 10-11, 15, 17-19, 23, 66-67.

Species IIf3- Claims 1-9, 11, 14-15, 17-18, 21, 23, 66-67.

Species IIf4- Claims 1-9, 11, 14-15, 17-18, 21, 23, 66-67.

Species IIf5- Claims 1-9, 11, 13, 15, 17-18, 20, 23, 66-67.

Species IIf6- Claims 1-9, 11, 13, 15, 17-18, 20, 23, 66-67.

Species IIf7- Claims 1-9, 11-12, 15, 17-18, 23, 66-67.

Species IIf8- Claims 1-9, 11-12, 15, 17-18, 23, 66-67.

12. A telephone call was made to John W. Carpenter (415-543-8700) on 7/24/06 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arnel C. Lavarias  
Primary Examiner  
Group Art Unit 2872  
7/21/06